A.D. 1905. Oct. 4. № 20,085.

BAGOT'S Complete Specification.

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(2 SHEETS

SHEET 1.

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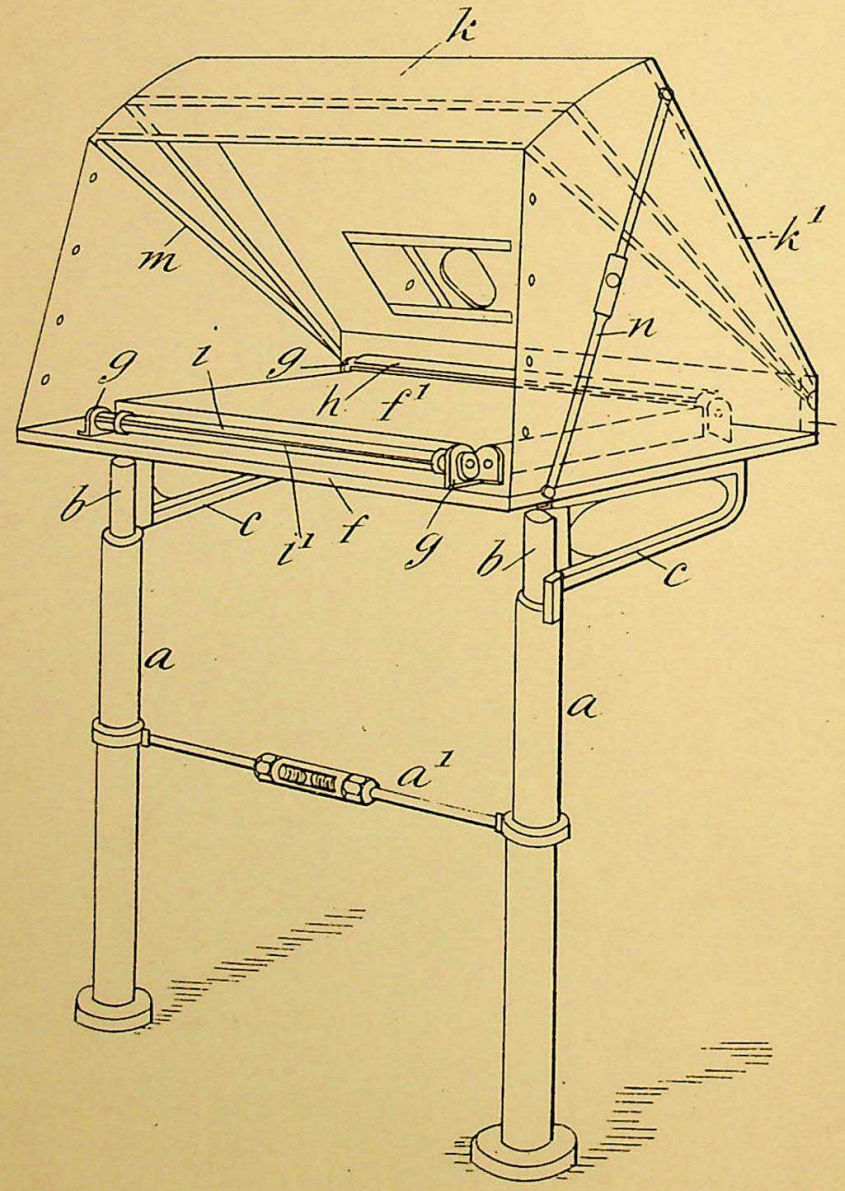
Fig. 1.



SHEET 2.

Fig. 2.

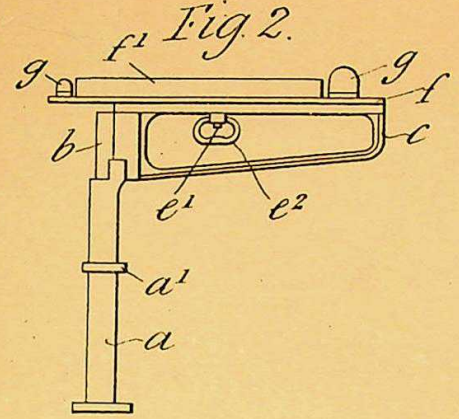


Fig. 3.

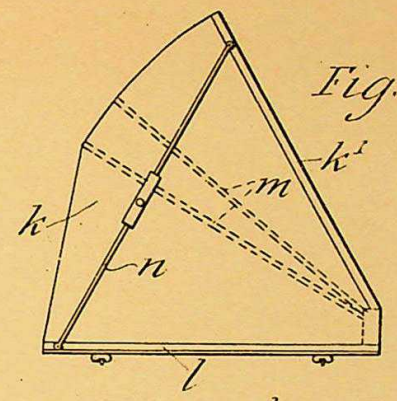


Fig. 4.

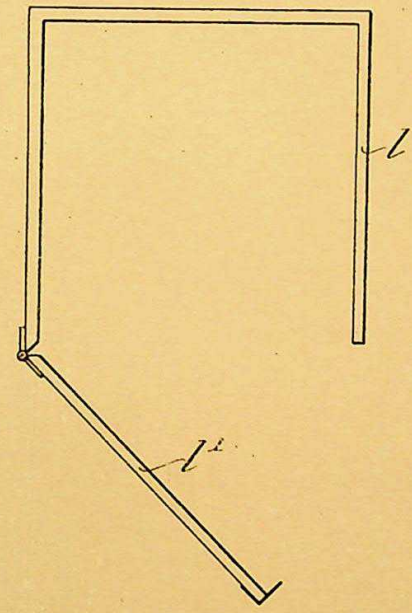


Fig. 5.

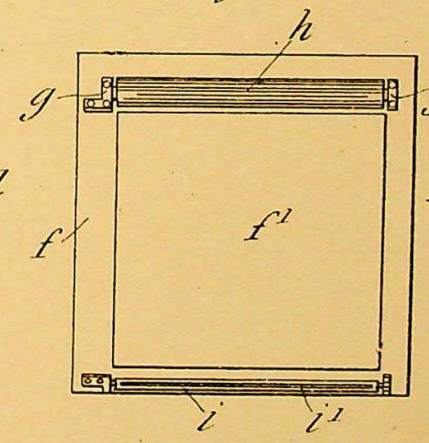


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Fig. 6.

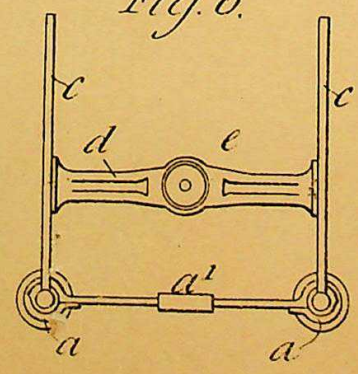


Fig. 7.

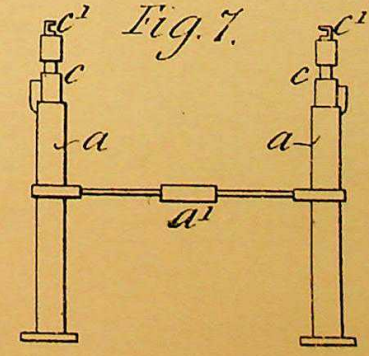
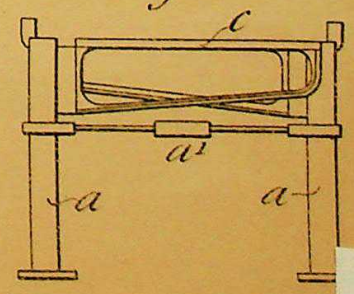


Fig. 8.



This Drawing is a reproduction of the Original on a reduced scale

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N° 20,085 A.D. 1905

Date of Application, 4th Oct., 1905—Accepted, 1st Feb., 1906

COMPLETE SPECIFICATION. DUPLICATE

"Improvements in Apparatus for Extending or Exhibiting Maps, Charts, Rolled Drawings or the like".

I, ARTHUR GREVILLE BAGOT, Captain, of the Army & Navy Club, Pall Mall, London, S.W., do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to apparatus for holding and displaying charts, maps or the like, and has for its object to facilitate the use of such charts or maps, particularly on board ship, and with this object the chart or the like is mounted on a spring rack and roller of the window blind type in the known manner, which roller is contained in a casing of metal or other suitable material, the chart or map being further protected from the weather and rendered more convenient in use by mounting the said casing within a protecting shroud or hood which is mounted, preferably adjustably, on a suitable support. By this means the chart or map may be mounted ready for immediate use while fully protected from spray, rain, dust or the like, and is extended for and during actual inspection or other use simply by retracting it from the casing to the necessary extent against the action of the spring rack by which it is again wound on the roller when released. The protecting shroud or hood is also designed to protect the map or chart while in actual use, and the apparatus may further include a table on which the chart or the like is extended, these being particularly necessary in the use of charts on board ships which are not provided with suitable and convenient chart rooms situated on the navigation bridge and available for the use of the officer in charge of the navigation without his having to leave his post.

Although the apparatus which constitutes the present invention may be applied to general purposes, it is more particularly designed for use on board ship; and will be described with reference to such use.

Hitherto it has been usual in using charts in exposed situations on board ship either to use them while exposed to the weather or to extend them under a sheet of glass, but this latter arrangement suffers from the drawback that it does not allow the plotting of courses, bearings or the like on the chart, and further, the sheet of glass while protecting the chart itself from the weather becomes the cause of obscuring the chart on account of the accumulation of rain spray *etc.* thereon.

According to the present invention each chart that may be required for use is contained in a metal case, and is mounted on a spring rack and roller of the window blind type from which it is unwound and extended over a table with its surface exposed during the actual period only in which it is required to consult or use the chart, the free end of the chart being secured to a roller, on the opposite end of the table, on which the chart is rolled up as it is paid off, or unwound from the other end. The chart is further protected from the effects of rain spray *etc.* by being treated with a water-proofing composition,

such treatment however not interfering with pencil working and marks on the chart which are required in navigation.

Further, a detachable box which can be fixed to the bridge rail or in any situation conveniently close to the chart table is provided, in which is contained other charts fitted in their metal cases and mounted on spring rollers which may be required for immediate use so soon as the position of the ship has been removed from the chart then in use which is fitted up on the chart table.

Should other charts be required these can be prepared and placed in another box in the protection of the chart room or cabin, and this box of new charts can be brought up to replace the box of charts whose use is no longer required.

The chart table is further protected from the weather by an extensible hood mounted on a frame which is detachably secured to the table, the hood being provided with front lights for the illumination of the chart by day, and with sconces or sockets for the attachment of an electric or other lamp for night use; a detachable apron may also be fitted to the rear edge of the hood so that the navigating officer may use the chart at night with artificial light without any rays from this light penetrating outside the table and chart. This apron also completes the protection of the chart and table. Further the table is preferably pivotally mounted on its support to enable the navigator to turn the table through a certain number of degrees of arc on either side of the fore and aft line of the ship.

The support hereinafter more particularly described is made collapsible to meet a particular case in which for want of space, as on the bridge of a torpedo boat destroyer or the like, the apparatus has to be set up or dismantled quickly so as not to permanently occupy valuable space.

In the accompanying drawings Fig. 1 is a perspective view of a complete apparatus constructed according to the present invention; Fig 2 is a side elevation of the apparatus with the protecting hood removed; Fig. 3 a side view of the hood extended; Fig. 4 a plan view of the base frame of the hood by which it is secured to the table;

Fig. 5 a plan view of the table with a chart and roller in position; Fig. 6 a plan view of the support; and Figs. 7 and 8 rear views of the same shewing the arms in the extended and collapsed positions respectively.

Referring to these drawings, the table support consists of a pair of strong metal columns *a* which may be substituted in lieu of two rail stanchions when the apparatus is fitted on board ship. These columns are braced by a turnbuckle tie-rod a^1 and bored hollow for the reception of the steel hinge pins *b* of gun metal arms or brackets *c* which are adapted to be swung forwards in the raised position shewn in Figs. 2 and 7 and to be swung inwardly towards each other in the dropped position shewn in Fig. 8.

The arms *c* are formed with grooves c^1 along their inner faces for the reception of a removable transverse bar *d* the centre of which is recessed to receive a metal disc or centre plate *e* which is secured to the table *f* and has a pin e^1 projecting through the bar *d* and screw-threaded at its end for the reception of a clamping nut e^2 by means of which the table and centre plate may be secured to the bar *d* in any required position in azimuth.

The table *f* has a raised central part f^1 and has at its outer corners supports or sockets *g* for the reception of a metal cylindrical casing *h* which contains the chart mounted on a spring ratchet roller journalled in the casing. Along the inboard edge of the table is pivotted a wooden roller *i* having a longitudinal groove i^1 in which is secured by spring detents or any other suitable clamping device the batten usually fixed along the outer end of the rolled chart.

The chart can be rolled more or less on to the wooden roller and off the casing roller, as may be desired the surface being kept flat by the tension of the roller spring and the chart being prevented from rolling up on the casing roller by a suitable spring pawl detent which can be released by the observer by means of a cord. The spring ratchet roller is in fact in all respects like the well known window blind roller and is operated in precisely the same fashion.

Supports or bearings for the two rollers may also be provided along the side edges of the table to enable the chart to be unwound transversely to the table, as would be advisable in the case of charts printed lengthwise of the sheet.

The protecting hood k is secured along its lower edge to a channel iron frame l having one hinged side l^1 which is fitted over the edge of the table and is secured thereto by closing and clamping the hinged side. The sides and top of the hood are made of canvas or other suitable flexible material kept in shape by bent wood rods or battens m and are secured in an open position by jointed rods n in the manner of the hood of a carriage. The front of the hood consists of a sheet k^1 of wood and thin metal hinged to the front edge of the frame l and provided with glass port lights protected by sliding shutters for illuminating the chart by day, and a suitably placed socket or sockets to support a lamp or lamps for the illumination of the chart by night.

It will be obvious that by unclamping the table it may be turned about its pivot so as to present the front k^1 of the hood towards the weather side, and an apron buttoning on the rear edge of the hood and falling over the observer's shoulders may be provided to protect the chart completely from weather influences.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In apparatus for displaying charts or the like by extending them between a pair of parallel rollers, mounting one of the rollers in a casing which can be unshipped together with the roller and chart and replaced by a similar set, substantially as described.

2. In apparatus of the character described in which the chart is extended over a table, the arrangement whereby the rollers may be mounted either along the front and rear edges or along the two sides of the table, substantially as described.

3. In apparatus of the character described, an extensible protecting shroud or hood detachably secured to the support and adapted to protect the chart or the like while allowing access to its surface when extended in actual use, substantially as described.

4. In the apparatus of the character described, a collapsible support comprising a pair of hollow stanchions, a pair of brackets hinged thereon, and adapted to be swung forwardly in a raised position to receive and support a table, and to be swung inwardly in a dropped position when the table is removed, substantially as described.

5. In the apparatus claimed in the preceding claim, a removable stretcher bar sliding between hinged brackets in their extended position, and having a circular recess on its upper face for the reception of a disc attached to the table, whereby the latter may be turned to any desired position and clamped therein by means of a screw threaded pin extending downwardly from the said disc and a clamping nut engaging below the stretcher bar, substantially as described.

6. Apparatus for holding and displaying charts or the like with their surfaces exposed to the observer but protected from wind, rain or the like, constructed substantially as herein described with reference to Figs. 1—8 of the accompanying drawings.

Dated this 4th day of October, 1905.

ABEL & IMRAY,
Agents for the Applicant.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1906.